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MANAGING MULE DEER IN THE 1990'S AND BEYOND: RESULTS OF A SURVEY OF OPINIONS, ATTITUDES AND ACTIVITIES OF ALBERTA'S RESIDENT MULE DEER HUNTERS

by

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and

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Wildlife Management Division

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PREFACE

This report includes summaries of the opinions held by resident mule deer hunters on various issues that concern mule deer hunting, as well as their preferences in hunting management. Presentation of these opinions and preferences in this report does not necessarily mean that either the authors agree, or that Fish and Wildlife Services agrees with the views and preferences expressed by mule deer hunters.

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INTRODUCTION

Wildlife management agencies are, at times, hampered by the lack of public involvement in formulating management objectives. Large-scale consultation with publics about mule deer management in Alberta has been essentially lacking. Accordingly, in the spring of 1993, Fish and Wildlife Services conducted a large-scale questionnaire survey of mule deer hunters who reside in the province. Objectives of the survey were essentially four-fold:

1. To obtain information on activities of mule deer hunters, and approaches to mule deer hunting;
2. To assess satisfaction levels of mule deer hunters;
3. To measure opinions of mule deer hunters on issues such as poaching, and mule deer population trends;
4. To assess preferences of mule deer hunters for various means of managing deer harvests.

This report presents the results of the mule deer hunter survey. Four other surveys of resident big game hunters have been recently completed in Alberta (specific surveys of elk hunters, moose hunters and white-tailed deer hunters; a general survey of big game licence holders). Results of these other surveys are presented separately (Todd and Lynch 1992a, 1992b; Todd and McFetridge 1993a, 1993b).

METHODS

A 32-item questionnaire (Appendix) was mailed to 507 mule deer hunters on 20 April 1993. The sample size of hunters was chosen to ensure a margin-of-error of $\pm$ 5%, 19 out

of 20 times, when dealing with a worst-case survey situation (divided 50% in favour of and 50% against), assuming a target population of 36 000 and a response rate of 75%. The sample of resident hunters was drawn (simple random sampling) from holders of 1992 wildlife certificates who were recorded as having purchased any of the 3 types of mule deer hunting licences which were available to residents, namely general mule deer licence ($\underline{n}$ = 299)[1], antlerless mule deer draw ($\underline{n}$ = 141) and antlered mule deer draw ($\underline{n}$ = 67).

The sample of mule deer hunters included individuals who purchased a mule deer licence but did not actually hunt mule deer. Up to 2 follow-up mailings (April 27, May 11) were made to non-respondents. Otherwise, Dillman's (1978) methods were employed.

Data analyses were performed using SAS (6.04) software and an Olivetti M300 Personal Computer.

RESULTS

Response Rate and Data-processing Errors

Questionnaires were returned by 419 people, yielding a response rate of 88% after exclusion of non-deliverables ($\underline{n}$ = 29)[1] and non-usables ($\underline{n}$ = 1). One questionnaire was received too late to be included in the analyses for this report.

We checked 1600 data records (50 randomly selected questionnaires with 32 records each) for data-entry errors; the error rate was 0.1%.

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[1]Number of hunters selected for licence type is shown in parentheses.

Sex, Age and Experience of Mule Deer Hunters, and Participation in Mule Deer Hunting

Of the 411 respondents who indicated their sex, 393 (95.6%) were male. Respondents reportedly ranged in age from 15 to 82; the median and mean ages were 38 and 40.0 years, respectively. For 415 respondents, the number of years of experience hunting mule deer (Alberta and elsewhere combined) ranged from 1 to 64 and averaged 14.0 years (median = 10). Of 366 respondents who had started hunting mule deer 3 or more years ago, most (56%) indicated that they purchased a mule deer hunting licence every year, while 34% indicated that they bought a licence more years than not, and 9% selected the "occasionally" category.

Approaches to Mule Deer Hunting

Weapons used.--Of 411 respondents, 74% hunted exclusively with firearms, whereas 19% used both firearms and bow and arrow and 7% used archery equipment exclusively.

Primary Means of Travel in Hunting Area.--Of 408 usable responses, most (54%) indicated foot travel, followed by four-wheel drive (18%), two-wheel drive highway vehicle (11%), other (7%), off-highway vehicle (6%), horse (3%) and canoe/boat (trace).[1] Travel means varied somewhat with weapons used. Bowhunters (full- and part-time combined, $n = 107$) were less likely (Chi-square = 21.74, 6 d.f., $P = 0.000$) to indicate two- and four-wheel drive highway vehicles as their primary means of travel (4 and 12%, respectively) than 304 respondents who hunted exclusively with firearms (respective figures were 13 and 20%). Likewise, bowhunters were more likely to use foot travel (69% vs. 48%) and

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[1]trace = < 0.5%.

canoe/boat (1% vs. 0%).

Aspects of Land Ownership and Permission.--Of 408 respondents, a plurality[1] (41%) indicated that they hunted on privately-owned lands, leased lands and unoccupied crown lands in roughly equal amounts, 29% hunted mostly on privately-owned lands, 28% hunted mostly on unoccupied crown lands, and 4% hunted mostly on leased public lands.

Of 302 respondents who hunted mostly on privately-owned and/or leased public lands (i.e., answer categories 1, 2 and 3 of question 5, Appendix), 81% indicated that they planned the hunt ahead of time and obtained permission before hand, 17% indicated that they got landowner/leaseholder permission just before going in (if they saw the person in the area) and 2% indicated that they "usually don't bother with permission".

Solitary vs. Group Hunting.--Of 410 respondents, 84% indicated that they "hunted with other deer hunters some or all of the time", whereas 16% "hunted alone at all times". Full-time bowhunters ($n = 27$) were much more likely (Chi-square = 14.95, 2 d.f., $P < 0.005$) to hunt alone at all times (41%) than part-time bowhunters ($n = 80$, 10% hunted alone) or respondents who used firearms exclusively ($n = 302$, 15%).

Motives, Importance of Mule Deer Hunting

The distribution of responses to the importance of various motives for mule deer hunting indicates that nature appreciation ("to get outdoors to enjoy nature") is singularly

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[1]"Plurality" is used here to indicate the numerically largest category, when the category in question is not more than half the total number of all respondents (as opposed to "majority").

dominant (94% of 413 respondents regarded this motive as either quite important or very important--Table 1). Other relatively important motives for hunting mule deer were "to escape everyday routines, release stress" (79% of 411 respondents regarded as quite or very important) and "to practice hunting skills such as tracking, stalking" (75% of 410 respondents), companionship (74% of 413) and solitude (71% of 407). The least important motives for mule deer hunting were "to use my hunting equipment", "the satisfaction of bagging an animal", and "to obtain a trophy animal" (Table 1).

Bowhunters differed from other mule deer hunters in respect to the distribution of responses on three motives for hunting (challenge, obtaining a trophy, practice hunting skills) and **tended** to differ on a fourth motive, as well (to use hunting equipment). Thus, 81% of full-time bowhunters (n = 27) and 68% of part-time bowhunters (n = 80) regarded "the challenge of outsmarting a game animal" as a quite important or very important motive, compared to 57% of 301 respondents who hunted exclusively with firearms (Chi-square = 14.23, 6 d.f., P = 0.028). Further, 44-46% of full-time and part-time bowhunters regarded obtaining a trophy animal as quite/very important, compared to 29% of 300 respondents who only used firearms (Chi-square = 24.16, 6 d.f., P = 0.000). Perhaps, to a bowhunter, any deer bagged is likely to be perceived as a "trophy". Likewise, 78% of full-time bowhunters and 86% of part-time bowhunters viewed "practice hunting skills" as quite/very important, compared to 71% of other hunters (Chi-square = 14.64, 6 d.f., P = 0.023). Finally, 56% of full-time bowhunters viewed use of hunting equipment as quite/very important, compared to 33% of part-time bowhunters (n = 79) and 32% of 301 respondents who hunted exclusively with firearms (Chi-square = 12.07, 6 d.f., P = 0.063).

Table 1. Percent of respondents to question on motives for hunting mule deer who assessed each motive as not at all important, slightly, quite, and very important.

Motive for hunting	% respondents in importance category			
	Not at all important	Slightly important	Quite important	Very important
To get outdoors to enjoy nature	1	5	29	65
To put meat in the freezer	11	33	32	25
For physical exercise	5	29	41	25
To enjoy solitude	9	20	37	34
To escape everyday routines, release stress	7	14	35	44
For the satisfaction of bagging an animal	30	39	21	9
For companionship of friends or family members	9	17	39	35
To practice outdoor skills (i.e., camping)	14	32	36	19
For the challenge of outsmarting a game animal	14	25	36	25
To obtain a trophy animal	37	30	16	18
To use my hunting equipment	28	39	24	10
To practice hunting skills (e.g., tracking, stalking)	5	20	43	31

Respondents who hunted alone at all times (n = 63) differed (P = 0.000) from others (n = 345) in respect to the distribution of responses on 2 motives for hunting mule deer. Respondents who hunted with others at least part of the time were more likely to regard nature enjoyment as quite/very important (95% vs. 87% of solitary hunters, Chi-square = 63.83, 3 d.f., P = 0.000) and more likely to regard companionship of friends/family as quite/very important as a reason for hunting mule deer (79% vs. 43% of solitary hunters, Chi-square = 39.85, 3 d.f., P = 0.000).

Mule deer hunting was quite important to most respondents. Of 414 respondents, 58% indicated that they would miss it quite a lot (if they could not go hunting next year, or if the season closed), whereas 21% indicated that they would miss it more than any other activity or interest. Only 17% of respondents indicated that they would miss mule deer hunting a little, and 4% chose "I would not miss it at all".

Hunter Satisfaction Levels and Determinants of Satisfaction

This section summarizes the various measures of mule deer hunter satisfaction. It also presents the findings on a number of questionnaire items which are either known or surmised to affect hunter satisfaction. Findings on the determinants of deer hunter satisfaction are preliminary at this time.

Longer-term Satisfaction.--Of 364 respondents, the vast majority were either neutral (neither satisfied nor dissatisfied, 93 respondents or 26%) or satisfied (slightly = 144 or 40%, strongly = 87 or 24%), only 40 respondents (11%) were dissatisfied (strongly = 9 or 2%, slightly = 31 or 9%).

Longer-term satisfaction varied with the frequency of hunting (question 20 of

Appendix). To illustrate, of 329 respondents who purchased mule deer hunting licences every year or more years than not, 66% were satisfied, 24% neutral and 10% dissatisfied, as compared to 38%, 44% and 18%, respectively, of 34 respondents who seldomly or occasionally purchased licences (Chi-square = 31.24, 6 d.f., P = 0.000).

Satisfaction in 1992.--Of 340 respondents, a majority were satisfied (strongly = 140 or 35%, slightly = 106 or 26%), whereas 24% were neutral (99 respondents) and 15% dissatisfied (strongly = 26 respondents or 6%, slightly = 34 respondents or 8%).

Of 409 respondents, a majority (50.4%) indicated that their mule deer hunting in 1992 was well worth the money spent (strongly agreed = 100 respondents or 24%, slightly agreed = 106 respondents, 26%), whereas 24% were neutral/indifferent and 26% disagreed (strongly = 50 respondents or 12%, slightly = 55 or 13%).

Of 409 respondents, 65% regarded their mule deer hunting to have been "every bit as enjoyable" as expected in Alberta in 1992 (strongly so = 131 respondents, 32%; slightly so = 136 or 33%). An additional 23% of respondents were neutral/indifferent to the statement indicated earlier, and 11% disagreed (strongly = 14, 3%; slightly = 32, 8%).

Observations of Mule Deer While Hunting.--Of 408 respondents, 99% reported observing mule deer while hunting; 262 hunters reported seeing 21 or more deer, 67 reported 11-20, 60 reported 3-10 and 14 reported seeing 1-2 mule deer. Bowhunters **tended** to observe relatively higher numbers of mule deer while hunting than respondents who used firearms exclusively (Chi-square = 13.97, 8 d.f., P = 0.086). To illustrate, 81% of 27 full-time bowhunters and 76% of 80 part-time bowhunters reported seeing 21 or more deer, as compared to 60% of 300 hunters who used only firearms.

The relative number of mule deer observed while hunting in 1992 was significantly correlated (Pearson's) with satisfaction for both unsuccessful hunters ($r = 0.363$, 207 d.f., $P < 0.01$), and for successful hunters ($r = 0.178$, 202 d.f., $P < 0.05$). To illustrate, among **unsuccessful** hunters, of 81 respondents who were satisfied, 65% had seen the largest numbers of mule deer while hunting (21 or more), contrasted to a minority (34%) of 53 respondents who were dissatisfied.

Numbers of Mule Deer Fired Upon.--Of 410 respondents, 41% did not fire at any mule deer, 41.5% (a plurality) fired at 1, 12% fired at 2, 4% fired at 3, and 1% fired at 4 or more. The number of mule deer fired upon was correlated (Pearson's) with the number seen ($r = 0.337$, 413 d.f., $P < 0.01$). The number of mule deer fired upon was **not** correlated with hunter satisfaction during 1992, for either successful or unsuccessful hunters.

Successful Kills of Mule Deer.--Of 413 respondents, 49% reported that they had personally killed a mule deer in Alberta in 1992. Whether or not respondents killed a mule deer varied with the relative number fired upon (Chi-square = 276.3, 4 d.f., $P = 0.000$). To illustrate, of 207 unsuccessful hunters, only 2% fired upon higher numbers of deer, compared to 8% of successful hunters.

Individual hunter success was a highly significant determinant of hunter satisfaction (Chi-square = 96.73, 14 d.f., $P = 0.000$). To illustrate, of 201 successful hunters (i.e., hunters who had killed a deer), 165 (82%) were satisfied, 29 neutral, and 7 dissatisfied, as compared to unsuccessful respondents ($n = 202$), where 81 (40%) were satisfied, 69 neutral and 52 dissatisfied.

Of 345 respondents who hunted with other persons at least some of the time in 1992,

52% (n = 178) reported that someone successfully killed a mule deer while in their company. Hunters who had successful hunting companions were more satisfied than those whose hunting companions did **not** kill a mule deer. Among respondents who did not kill deer themselves, only 28% of 116 whose companions **were not** successful were satisfied (another 39% were neither satisfied nor dissatisfied), as compared to 64% of 53 whose companions **were** successful (Chi-square = 25.7, 4 d.f., P = 0.000). Among respondents who **had** killed deer themselves, only 78% of 49 whose companions **were not** successful were satisfied (another 18% were neutral), as compared to 84% of 123 whose companions **were** successful (Chi-square = 11.00, 4 d.f., P = 0.027).

Frequency of Encountering Other Hunters.--Of 406 respondents to the questionnaire item on encountering too many other hunters (question 7 of Appendix), a slight plurality (41%) was neutral/indifferent, whereas 40% disagreed, and 19% agreed. Thus, the majority of mule deer hunters did **not** feel crowded while hunting in 1992.

Perceptions of having encountered too many other deer hunters **tended** to be related to solitary vs. group hunting (Chi-square = 9.33, 4 d.f., P = 0.055). Respondents who hunted alone at all times (n = 63) were more likely to agree with the perception (24%) and less likely to be neutral/indifferent (37%), as compared to those respondents (n = 341) who hunted with others at least some of the time (agree = 19%, neutral = 41%). Further, perceptions of having met too many other hunters varied with the type of lands typically hunted on (question 5 of Appendix). Mule deer hunters who typically hunted on private lands and leased public lands (n = 129, combined) were more likely to feel they did **not** encounter too many hunters (48% disagreed, 40% neutral) than those (n = 161) who hunted

on the various land categories in roughly equal amounts (34% disagreed, 47% neutral) or those (n = 109) who hunted mostly on unoccupied crown lands [41% disagreed, 30% neutral (Chi-Square = 17.03, 4 d.f., P < 0.005).

Among 201 successful hunters, those who were satisfied (n = 165) were less likely to agree that they had encountered too many other hunters (10% agreed, 42% neutral), compared to respondents (n = 29) who were neither satisfied nor dissatisfied (31% agreed, 48% neutral) and those who were dissatisfied [57% agreed, 14% neutral (Chi-square = 21.72, 4 d.f., P < 0.005)]. Whether or not respondents felt they encountered too many other hunters **tended** to vary among successful (n = 202) and unsuccessful (n = 203) respondents (Chi-square = 5.80, 2 d.f., P = 0.057). To illustrate, among unsuccessful respondents, 24% felt crowded and 38% were neutral, compared to 15% crowded and 43% neutral for successful hunters. These findings, of course, suggest that bagging a deer is a principal determinant of satisfaction.

Perceptions of Mule Deer Population Trends.--Of 410 respondents, a plurality (42%) thought mule deer had increased in recent years, while 30% thought they had stayed the same, 14% perceived a decrease, and 14% didn't know.

Non-compliance with Hunting Regulations.--Of 414 respondents, 78% indicated that they did **not** have direct personal knowledge of hunting infractions that occurred in Alberta during 1992, whereas 22% (n = 93) **did have** such knowledge. Of the latter group, only 27% **had** participated in the "Report A Poacher" (R.A.P.) program during 1992. Respondents who had participated in the R.A.P. program **tended** (P = 0.077) to plan their hunts well ahead of time and obtain permission, when necessary [34% of 80 participated, as

compared to 0-10% of those in the other answer categories for Question 6 (Chi-square = 5.25, 2 d.f.)].

A plurality of respondents (n = 408) was neutral (32%) to the statement that "illegal deer hunting commonly occurs in Alberta"; 27% strongly agreed, 23% slightly agreed, 13% slightly disagreed and 6% strongly disagreed. Respondents who had not observed hunting infractions in 1992 (n = 318) were more likely to be neutral/indifferent to the statement (35%) and less likely to agree (45%), as compared to those respondents (n = 89) who **did have** direct personal knowledge of hunting infractions [neutral = 21%, agree = 64% (Chi-square = 9.79, 2 d.f., P = 0.008)].

Other Hunting Management Considerations

Type of Mule Deer Sought.--Of 361 respondents, a large majority (85%) indicated that they usually preferred to take a buck, whereas 6% preferred to take the first deer that they saw (irrespective of age or sex) and 8% preferred to kill a doe or fawn.

Landowner-Hunter Interactions.--Of 407 respondents to the question on access to privately-owned lands (question 24 of Appendix), 43% regarded it as "not a problem at all", 32% chose the category "it's a bit of a problem for me"; 17% and 8% regarded it as "fairly serious" and "extremely serious", respectively. Perceptions of land-access problems were related to hunter satisfaction (question 16 of Appendix). To illustrate, 80% of **satisfied** hunters (n = 240) regarded access problems as non-existent to slight, compared to 72% of hunters who were neither satisfied nor dissatisfied (n = 97) and 62% of dissatisfied hunters [n = 60 (Chi-square = 22.01, 4 d.f., P = 0.000)]. Perceptions of land-access problems were affected by the choice of lands for hunting deer (question 5 of Appendix) (Chi-square

= 12.14, 4 d.f., P = 0.018). To illustrate, of 129 respondents who hunted mostly on privately-owned or leased lands, 85% regarded access as "not a problem"or "a bit of a problem", while 12% and 4% regarded it as fairly serious and extremely serious, respectively. However, among 162 respondents who hunted on private lands, leased lands and unoccupied crown lands in roughly equal amounts, 72%, 19% and 9% regarded access problems as non-existent and/or slight, fairly serious, and extremely serious, respectively. The corresponding figures for respondents (n = 109) who hunted mostly on crown lands were 66, 21% and 13%. These findings suggest that some hunters who would preferentially hunt on privately-owned lands and/or leased public lands are being displaced to unoccupied crown lands, because of difficulties in obtaining permission to hunt.

Of 415 respondents, 57% provided suggestions on improving "hunting management to reduce crop damages by deer in areas where such damages commonly occur". Suggestions have not been categorized as yet.

Managing Buck Harvests in Southern Alberta.--A sizable majority (64%) of 405 respondents approved of limited-entry draws for mule deer bucks in southern Alberta (question 26 of Appendix), whereas 23% were neutral and 13% disapproved. Moreover, over three-quarters (76%) of 410 respondents agreed with having a **small** portion of Alberta set aside for the production of trophy bucks; of that group, a majority (63%) thought the present area of 4 Wildlife Management Units (WMUs) was about right for the production of trophy mule deer bucks, while 29% wanted the area enlarged and 8% thought 1 or 2 WMUs would suffice.

Variety of Licencing.--A small majority of 404 respondents was satisfied (very =

22%, slightly = 33%) when asked about the variety of hunting licences available for hunting mule deer in Alberta; only 13% of respondents were dissatisfied (slightly = 8%, strongly = 5%) and 32% indicated neither satisfaction nor dissatisfaction.

Other Suggestions and Comments

Of 415 respondents, 54% provided suggestions on improving future hunts for mule deer. Comments have not been categorized as yet, although comments on the draw system, native hunting, excessive fees, and local trends were all fairly common.

DISCUSSION AND CONCLUSIONS

Mule deer hunters in Alberta are nearly all male (95.6%) and have considerable hunting experience; they are comparable to moose and elk hunters in age and experience (Todd and Lynch 1992a, 1992b), whereas white-tail hunters are younger and less experienced (Todd and McFetridge 1993b). However, females comprise a somewhat larger proportion of both deer hunters (4.4 - 4.5%), than they do for elk and moose hunters.

Resident mule deer hunters relied on firearms for hunting (74% used firearms exclusively in 1992) and primarily travelled on foot while in the hunting area(s). Mule deer hunting was a sociable undertaking for most respondents, although 16% hunted alone at all times for mule deer during 1992. A plurality (41%) of respondents divided their hunting time equally among private lands, leased lands and unoccupied crown lands, although sizable numbers concentrated their mule deer hunting on privately-owned lands (29%) and unoccupied crown lands (28%), as well. Most respondents evidently secured hunting permission beforehand, when required, although 19% apparently did **not**, on a regular basis.

Relatively few hunters regarded access to privately-owned lands as a significant problem to themselves (for deer hunting).

Most mule deer hunters purchased licences every year, and regarded hunting mule deer as quite important to themselves. The hunting motive, "to get outdoors to enjoy nature", was very dominant among mule deer hunters, followed by other appreciative motives (escape routines/release stress, practice hunting skills, solitude) and companionship. Obtaining a "trophy animal" was the least important motive for hunting mule deer, although a large majority of respondents (85%) usually preferred to kill a buck. In respect to motives for hunting mule deer, several differences were shown among bowhunters and hunters using firearms, and among solitary and group hunters.

Both longer-term and current (1992) measures of satisfaction indicate that a good majority of mule deer hunters were either satisfied or neutral; relatively few respondents were dissatisfied, although responses to the question on satisfaction with money spent (question 17 of Appendix) showed somewhat less satisfaction on that criterion (this may indicate that a number of respondents regard licence fees to be high). Satisfaction of respondents (in 1992) was related to the relative number of mule deer seen while hunting, whether or not respondents had killed a mule deer, and whether or not companions killed a deer, in the case of respondents who did not hunt alone at all times. In respect to determinants of satisfaction, several differences were shown among bowhunters and respondents who used firearms exclusively, among solitary and other (group) hunters, and among hunters in different hunting situations (hunters on private/leased lands were less likely to feel crowded).

A majority of mule deer hunters either agreed or was neutral to the idea that illegal deer hunting was common in Alberta. Most, however, did **not** have direct personal knowledge of hunting infractions in 1992. Of those who **did** have knowledge of infractions, only 27% had participated in the "Report A Poacher" program during 1992.

Majorities of mule deer hunters approved of limited-entry draws for mule deer bucks in southern Alberta (64%) and of having a **small** portion (like the present 4 Wildlife Management Units) set aside for the production of trophy bucks (76%). Likewise, most respondents (55%) were satisfied with the existing variety of mule deer hunting licences which are available to residents. Finally, in respect to trends in mule deer populations, most respondents perceived deer as having increased or stayed the same in recent years. In conclusion, from the standpoint of resident hunters, it seems that relatively few adjustments are required, at this time, to the hunting management of mule deer populations in Alberta.

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Appendix: A copy of the questionnaire mailed to hunters in April 1993 (do not complete and return this questionnaire copy, it is included here only for your information).

ALBERTA FORESTRY, LANDS
AND WILDLIFE
FISH AND WILDLIFE DIVISION

MANAGING MULE DEER IN THE 1990'S AND BEYOND: A SURVEY OF OPINIONS, ATTITUDES AND ACTIVITIES OF ALBERTA'S RESIDENT MULE DEER HUNTERS

To the Respondent:

Thank you for answering these questions about hunting mule deer in Alberta. The information provided by you and other mule deer hunters will be used to improve the management of deer populations, now and in the future. Please answer all of the questions which apply to you. Most questions can be answered by circling the number next to the answer you choose, or by writing in the blank space provided. If you have any questions, please call Arlen Todd in Edmonton (422-9537). You may call toll-free by using the regional information telephone enquiries (RITE) system. Just call your operator and ask to be connected with the RITE operator.

All information which you provide in this questionnaire will be kept completely confidential. The questionnaire has an identification number on it, but that number is used only for mailing purposes. That number enables us to check your name off on the mailing list when your questionnaire is returned. Otherwise, your name will never be associated with the questionnaire itself.

Please return your completed questionnaire within the next few days by folding it over once (in half) and placing it in the postage paid envelope provided.

We appreciate your cooperation with this survey.

TO BEGIN, WE WANT TO KNOW WHY YOU HUNT MULE DEER AND HOW IMPORTANT HUNTING THEM IS TO YOU.

1. There are a number of reasons why people hunt. Please consider the following list of reasons for hunting, and indicate how important each one is to you personally, as a reason for hunting mule deer (circle one number for **each** reason).

Reason	Not At All Important	Slightly Important	Quite Important	Very Important
To get outdoors to enjoy nature	1	2	3	4
To put meat in the freezer	1	2	3	4
For physical exercise	1	2	3	4
To enjoy solitude	1	2	3	4
To escape everyday routines, release stress	1	2	3	4
For the satisfaction of bagging an animal	1	2	3	4
For companionship of friends or family members	1	2	3	4
To practice outdoor skills (for example, camping)	1	2	3	4
For the challenge of out-smarting a game animal	1	2	3	4
To obtain a trophy animal	1	2	3	4
To use my hunting equipment	1	2	3	4
To practice hunting skills (e.g., tracking, stalking)	1	2	3	4

2. If for some reason you could not go hunting mule deer next year, or if the season closed, how much would you miss it (please circle the number of your answer)?

1 I WOULD NOT MISS IT AT ALL.
2 I WOULD MISS IT A LITTLE.
3 I WOULD MISS IT QUITE A LOT.
4 I WOULD MISS IT MORE THAN ANY OTHER ACTIVITY OR INTEREST.

THE NEXT FEW QUESTIONS CONCERN YOUR MULE DEER HUNTING ACTIVITIES IN ALBERTA DURING 1992.

3. Please indicate your <u>primary</u> means of travel <u>in the hunting area(s)</u> while you were hunting mule deer during 1992 (circle one number only).

1 TWO-WHEEL DRIVE HIGHWAY VEHICLE
2 FOUR-WHEEL DRIVE HIGHWAY VEHICLE
3 ON FOOT
4 HORSE
5 OFF-HIGHWAY VEHICLE
6 CANOE OR BOAT
7 OTHER (PLEASE SPECIFY) _____

4. Which statement best describes your choice of weapons for hunting mule deer in Alberta in 1992 (please circle number)?

1 I HUNTED ONLY WITH BOW AND ARROW.
2 I USED BOW AND ARROW **<u>AND</u>** FIREARMS (RIFLE, MUZZLE LOADER, SHOTGUN), TOO.
3 I HUNTED ONLY WITH FIREARMS (RIFLE, MUZZLE LOADER, SHOTGUN).

5. Which statement best describes your typical situation for hunting mule deer in Alberta (please circle number)?

1 MOST OF MY HUNTING IS DONE ON PRIVATELY OWNED LANDS.
2 I HUNT MOSTLY ON LEASED PUBLIC LANDS.
3 I HUNT ON PRIVATELY OWNED LANDS, LEASED LANDS, AND UNOCCUPIED CROWN LANDS IN ROUGHLY EQUAL AMOUNTS.
4 I HUNT MOSTLY ON UNOCCUPIED CROWN LANDS.

If you circled number 4 (i.e., you hunt mostly on unoccupied crown land), please to go question number 7. Otherwise, please answer question number 6, too.

6. Which statement best applies to your trips for hunting mule deer on private lands or leased public lands (please circle number)?

1 I PLAN THE HUNT WELL AHEAD OF TIME AND OBTAIN LANDOWNER OR LEASEHOLDER PERMISSION, WHEN NECESSARY, BEFOREHAND.
2 I GET PERMISSION IF I SEE THE LANDOWNER (OR LEASEHOLDER) IN THE AREA WHERE I'M GOING TO HUNT, JUST BEFORE I GO IN.
3 I SIMPLY HEAD OUT WHEN READY AND USUALLY DON'T BOTHER WITH PERMISSION.

NOW, WE WANT TO KNOW ABOUT YOUR ENCOUNTERS AND EXPERIENCES WITH OTHER HUNTERS.

7. Please indicate the extent to which you disagree or agree with the following statement: During my mule deer hunting in Alberta in 1992, I encountered <u>too</u> <u>many</u> other hunters (circle number).

Strongly disagree				Strongly agree
1	2	3	4	5

8. Do you have direct personal knowledge of illegal hunting acts (such as hunting without licence, night hunting, hunting before or after the open season) in Alberta during 1992 (please circle number)?

    1 NO
    2 YES

    If no, please go to question 10. If yes, please answer question 9, too.

9. Did you participate in the "Report A Poacher" program in 1992 by reporting one or more incidents of illegal hunting (please circle number)?

    1 NO
    2 YES

10. Please indicate the extent to which you disagree or agree with the following statement: Illegal deer hunting commonly occurs in Alberta (circle number).

Strongly disagree				Strongly agree
1	2	3	4	5

NEXT, WE ARE INTERESTED IN SOME RESULTS OF YOUR MULE DEER HUNTING IN 1992, AND YOUR RELATIVE SATISFACTION.

11. While hunting mule deer in Alberta during 1992, the number of mule deer which you saw was.... (circle one answer only, please):

    0 1-2 3-10 11-20 21 or more

12. Did you personally kill a mule deer in Alberta during 1992?

    1 NO
    2 YES

13. The number of mule deer which you shot at while hunting mule deer in Alberta during 1992 was....(please circle number)

    0 1 2 3 4 or more

14. Please indicate whether you always hunted mule deer by yourself during 1992 (in Alberta) or whether you hunted in the company of other mule deer hunters some or all of the time (circle number).

    1 I HUNTED ALONE AT ALL TIMES.
    2 I HUNTED WITH OTHER HUNTERS SOME OR ALL OF THE TIME.

    If you hunted alone at all times, please go to question 16. Otherwise, please answer question 15, too.

15. Did any of the other persons that you hunted mule deer with in 1992 kill a mule deer while you were hunting with them (please circle number)?

    1 NO
    2 YES

16. Please indicate your relative satisfaction with your mule deer hunting experiences in Alberta in 1992 (circle number):

    Very dissatisfied 1 2 3 4 Very satisfied 5

NEXT, PLEASE INDICATE THE EXTENT TO WHICH YOU DISAGREE OR AGREE WITH THE FOLLOWING TWO STATEMENTS.

17. My mule deer hunting in Alberta in 1992 was well worth the money I spent (circle number).

Strongly disagree				Strongly agree
1	2	3	4	5

18. My mule deer hunting in Alberta in 1992 was every bit as enjoyable as I expected it to be (circle number).

Strongly disagree				Strongly agree
1	2	3	4	5

NOW WE WANT TO KNOW ABOUT YOUR LONGER-TERM EXPERIENCES WITH MULE DEER HUNTING AND YOUR OVERALL SATISFACTION LEVELS.

19. How many years, in your lifetime, have you been licenced to hunt mule deer anywhere (Alberta and elsewhere combined)?

_____ YEARS

If 2 years or less, please go to Question 23 at the top of page 9. If more than 2 years, please answer questions 20, 21 and 22, as well.

20. Please indicate relatively how often you have purchased a mule deer licence in Alberta in the years since you first bought one.

1 I SELDOM BUY A MULE DEER HUNTING LICENCE.
2 I OCCASIONALLY BUY A MULE DEER LICENCE.
3 I BUY A MULE DEER LICENCE MORE YEARS THAN NOT.
4 I BUY A MULE DEER HUNTING LICENCE EVERY YEAR.

21. Which of the following statements best describes your preference for the type of mule deer to kill (please circle number)?

1 I GENERALLY PREFER TO TAKE THE FIRST DEER THAT I SEE, WHETHER IT'S A BUCK, DOE, OR FAWN.
2 I GENERALLY PREFER TO KILL A DOE OR FAWN.
3 I USUALLY PREFER TO TAKE A BUCK.

22. Please indicate your overall satisfaction with your mule deer hunting experiences in Alberta during the past few years that you have hunted (circle number).

Very dissatisfied				Very Satisfied
1	2	3	4	5

23. In your opinion, in the area(s) where you hunt, have mule deer numbers in the last few years..... (please circle number)

1 DECREASED?
2 STAYED THE SAME?
3 INCREASED?
4 DON'T KNOW.

NOW, WE WANT YOUR OPINIONS ON A FEW OTHER ASPECTS OF THE MANAGEMENT OF MULE DEER POPULATIONS.

24. Quite a lot of mule deer hunting in Alberta is done on privately-owned lands. Please indicate the extent to which you regard gaining access to privately-owned lands as a problem for you, as a mule deer hunter (circle number).

1 IT'S NOT A PROBLEM AT ALL.
2 IT'S A BIT OF A PROBLEM FOR ME.
3 IT'S A FAIRLY SERIOUS PROBLEM.
4 IT'S AN EXTREMELY SERIOUS PROBLEM.

25. One of the challenges for deer managers is to balance the needs of landowners against the needs and interests of hunters. As an example, increased deer numbers can result in significant damages to landowners' crops in some areas. Hunting is one means of minimizing such damages. Do you have any suggestions on how we could improve hunting management to reduce crop damages by deer in areas where such damages commonly occur? This would have to be done, of course, in such a way that individual farms were not over-run by hunters, or landowner-hunter relations could get worse. If you have any suggestions, please write in the space provided.

_____

_____

_____

_____

_____

26. Limited-entry draws have been used to manage harvests of antlered mule deer in a large part of southern Alberta for the past 5 years. The switch to draws was made primarily to improve hunter success, improve buck:doe ratios, provide some larger bucks, and reduce crowding of hunters. Please indicate the extent to which you disapprove or approve of these limited-entry hunts for mule deer bucks in southern Alberta (circle number).

Strongly disapprove				Strongly approve
1	2	3	4	5

27. A <u>small</u> portion of southern Alberta (Wildlife Management Units 102, 104, 106, 108) has been managed to produce trophy mule deer bucks for the past 12 years (limited-entry hunts). Do you disagree or agree with having a small portion of Alberta set aside for the production of trophy mule deer bucks (circle number)?

1 I DISAGREE WITH HAVING A TROPHY AREA.
2 I AGREE WITH HAVING A TROPHY AREA.

If you <u>disagree</u> with having a trophy area (i.e., you circled number 1 on the preceding question), please go to question number 29 on page 11. Otherwise, please answer question number 28, too.

28. Which of the following statements best describes your opinion on the size of the area which should be set aside for the production of trophy mule deer (circle number of answer)?

1 ONE OR TWO WILDLIFE MANAGEMENT UNITS WOULD BE ENOUGH.
2 THE PRESENT AREA OF FOUR WILDLIFE MANAGEMENT UNITS IS ABOUT RIGHT.
3 THE AREA SHOULD BE EXTENDED TO INCLUDE EVEN MORE WILDLIFE MANAGEMENT UNITS (specify approximate total number of units:_____).

29. Please indicate the extent to which you are dissatisfied or satisfied with the variety of hunting licences available to you for hunting mule deer in Alberta (circle number).

Very dissatisfied				Very Satisfied
1	2	3	4	5

THE LAST QUESTIONS WILL PROVIDE INFORMATION WHICH WILL HELP US INTERPRET YOUR QUESTIONNAIRE RESPONSES.

30. Please indicate your present age, in years (write in space provided).

_____ YEARS

31. Please indicate your sex (circle number).

1 MALE
2 FEMALE

32. Is there anything else you would like to tell us that might help improve your future hunts for mule deer in Alberta? If so, please use this space for that purpose.

THANK YOU. PLEASE RETURN YOUR COMPLETED QUESTIONNAIRE TODAY, USING THE RETURN ENVELOPE PROVIDED. Please fit the questionnaire booklet in the envelope by folding the booklet over once (in half). In the event that the pre-addressed envelope has been lost, please mail the questionnaire to the following address:

Alberta Fish and Wildlife Division
Attention: Arlen Todd
7th Floor
O.S. Longman Building
6909 - 116 Street
Edmonton, Alberta T6H 4P2

IF YOU WOULD LIKE TO RECEIVE A SUMMARY OF THE SURVEY RESULTS, PLEASE PRINT YOUR NAME AND MAILING ADDRESS ON THE BACK OF THE RETURN ENVELOPE (NOT ON THE QUESTIONNAIRE ITSELF) AND PRINT "YES" ON THE FRONT COVER OF THE QUESTIONNAIRE BOOKLET, IN THE LOWER RIGHT-HAND CORNER. WE WILL SEE THAT YOU GET THE SUMMARY.

N.L.C./B.N.C.
3 3286 50150 8176